GRIDWEEK

Washington DC
September 22-25, 2008

Interoperability Lessons Learned from the eCommerce, Manufacturing and Business-to-Business Sectors

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Lesson #1

Large, universal solutions tend to not work

Examples:

CIM-OSA (Computer Integrated Manufacturing – Open Systems Architecture)

- –Intended to address every aspect of manufacturing communications
- –Enthusiastically developed in the late 80's and early 90's
- –Laid out many concepts, but was never widely implemented

MAP (Manufacturing Automation Protocol)

- – Standardization effort led by General Motors during the 80's
- –Addressed every level, from the cable connectors, network protocols, up to the business concepts

If you get too ambitious, and the solution is too big, people walk away

Lesson #2

What works? Solutions where you can adopt in bite-size chunks

Examples:

Early HTML (HyperText Markup Language) that unleashed the World Wide Web

- People could write HTML code with any text editor, and create a web page

OAG BODs (Open Application Group, Business Object Documents)

- Designed to capture individual business transactions
  - Request for quote, purchase order, etc.
- Just learn about the transaction you want, don't bother with the others

These examples all incorporate extensibility

Lesson #3

Take advantage of solutions that are already in use in the eCommerce/eBusiness sector

- OMG (Object Management Group).
  - BPMN (Business Process Modeling Notation)
- OAGi (Open Applications Group, Inc.)
  - BODs (Business Object Documents)
- OASIS, W3C and UN/CEFACT –
  - Web services & ebXML as a “service” communications layer
- Event Processing Technical Society and NCIOC (Network Centric Operations Industry Consortium)
  - Event modeling

Why? Already a large market of users and software providers

First Steps

1. Establish an (extensible) terminology set
   - Need to agree on definitions of terms
2. Choose (or define) a minimal interoperable architecture
   - Centralized? Peer-to-peer? Federated?
3. Establish a simple, extensible, service-based language (or set of languages) for processes, transactions, events, borrowing heavily from existing and emerging commercial standards in the business sector

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Guiding Principles

- Don't try to "boil the ocean"
- Assume the world will always be heterogeneous
- "Integration" is a process, not an end state